

WHAT IS CLAIMED IS:

1. An information use frequency prediction program which causes a computer to function as:
  - a temporal operation unit which performs temporal operation in a unit of predetermined time, sequentially, with respect to the relative relation between a first pattern representing a temporal change related to use frequency of first time series information and a second pattern representing a temporal change related to use frequency of second time series information;
  - a correlation coefficient calculation unit which calculates a correlation coefficient between the first time series information and the second time series information, for each unit of the predetermined time;
  - a pair specifying unit which specifies a pair of the first time series information and the second time series information, corresponding to the correlation coefficient having the highest value, of a plurality of correlation coefficients calculated by the correlation coefficient calculation unit; and
  - a prediction unit which predicts use frequency of the first time series information constituting the pair, based on the second pattern corresponding to the pair.

2. The information use frequency prediction program according to claim 1, wherein the temporal operation unit performs the temporal operation, with regard to all combinations of a plurality of first time series information belonging to a first group, and a plurality of second time series information belonging to a second group.

3. The information use frequency prediction program according to claim 2, which causes a computer to function as sort unit which sorts a plurality of prediction results in the prediction unit, by using the use frequency as a key.

4. The information use frequency prediction program according to claim 1, wherein the temporal operation unit shifts the second time series information, sequentially on the time base in a unit of the predetermined time, based on the first time series information.

5. The information use frequency prediction program according to claim 1, wherein the temporal operation unit expands or contracts the second time series information time wise, sequentially, in a unit of predetermined expansion and contraction, based on the first time series information.

6. The information use frequency prediction program according to claim 1, wherein the temporal operation unit shifts the second time series information, sequentially on the time base in a unit of the predetermined time, and expands  
5 and contracts the shifted second time series information timewise, sequentially, in a unit of predetermined expansion and contraction, based on the first time series information.

7. The information use frequency prediction program  
10 according to claim 1, wherein the first time series information and the second time series information are time series information of use frequency of keywords in a keyword search engine on the Internet.

15 8. The information use frequency prediction program according to claim 1, wherein the first time series information and the second time series information are collected via different collection routes.

20 9. The information use frequency prediction program according to claim 1, wherein the first time series information and the second time series information are collected via the same collection route, and the collected time series information is grouped into two.

2025 RELEASE UNDER E.O. 14176

10. An information use frequency prediction apparatus comprising:

a temporal operation unit which performs temporal operation in a unit of predetermined time, sequentially,  
5 with respect to the relative relation between a first pattern representing a temporal change related to use frequency of first time series information and a second pattern representing a temporal change related to use frequency of second time series information;

10 a correlation coefficient calculation unit which calculates a correlation coefficient between the first time series information and the second time series information, for each unit of the predetermined time;

15 a pair specifying unit which specifies a pair of the first time series information and the second time series information, corresponding to the correlation coefficient having the highest value, of a plurality of correlation coefficients calculated by the correlation coefficient calculation unit; and

20 a prediction unit which predicts use frequency of the first time series information constituting the pair, based on the second pattern corresponding to the pair.

11. The information use frequency prediction apparatus according to claim 10, wherein the temporal operation unit shifts the second time series information on the time base, sequentially, in a unit of predetermined time, based on the  
5 first time series information.

12. The information use frequency prediction apparatus according to claim 10, wherein the temporal operation unit expands or contracts the second time series information time wise, sequentially, in a unit of predetermined expansion and contraction, based on the first time series information.  
10

13. An information use frequency prediction method comprising:

15 a temporal operation step of performing temporal operation in a unit of predetermined time, sequentially, with respect to the relative relation between a first pattern representing a temporal change related to use frequency of first time series information and a second pattern  
20 representing a temporal change related to use frequency of second time series information;

a correlation coefficient calculation step of calculating a correlation coefficient between the first time series information and the second time series information,  
25 for each unit of the predetermined time;

a pair specifying step of specifying a pair of the first time series information and the second time series information, corresponding to the correlation coefficient having the highest value, of a plurality of correlation coefficients calculated by the correlation coefficient calculation step; and

a prediction step of predicting use frequency of the first time series information constituting the pair, based on the second pattern corresponding to the pair.

10

14. The information use frequency prediction method according to claim 13, wherein in the temporal operation step, the second time series information is shifted on the time base, sequentially, in a unit of predetermined time,  
15 based on the first time series information.

15. The information use frequency prediction method according to claim 13, wherein in the temporal operation step, the second time series information is expanded or contracted time wise, sequentially, in a unit of predetermined expansion and contraction, based on the first time series information.  
20